

12-2 Writing Rates

UNIT 4

OBJECTIVE: Writing a rate to represent a comparison of two different quantities

A **rate** is a ratio that compares two unlike quantities. For example, a speed of 55 miles per hour is a rate because distance is compared to time. A **unit rate** is a ratio in which the denominator is one unit. For example, a price per pound is a unit rate.

EXAMPLE 1

Write the unit rate. Round as needed to the nearest cent.
\$4.59 for 5 pounds

Solution

$$\begin{array}{lcl} \frac{\text{dollars}}{\text{pounds}} & \rightarrow & \frac{4.59}{5} \quad \text{Divide 4.59 by 5.} \quad \frac{0.918}{5)4.590} \end{array}$$

The price per pound is about \$0.92.

EXAMPLE 2

Write the unit rate. Round as needed to the nearest hundredth.
180 miles in 3.5 hours

Solution

$$\begin{array}{lcl} \frac{\text{miles}}{\text{hours}} & \rightarrow & \frac{180}{3.5} \quad \text{Divide 180 by 3.5.} \end{array}$$

Since $180 \div 3.5$ is about 51.43, the unit rate is about 51.43 miles per hour.

Write each unit rate. Round to the nearest hundredth as needed.

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|-------------------------------------|--------------------------------------|------------------------------------|
| 1. \$220 for 40 hours
_____ | 2. \$12.45 for 12 pounds
_____ | 3. \$310.88 for 4 tires
_____ |
| 4. 236 miles in 3.6 hours
_____ | 5. \$98 for 7 tickets
_____ | 6. 72 boxes for \$12
_____ |
| 7. \$630 for 8 days
_____ | 8. 840 words in 20 minutes
_____ | 9. \$56 for 12 issues
_____ |
| 10. 380 miles in 3.5 hours
_____ | 11. 34 liters in 12 minutes
_____ | 12. 18 tokens for 6 rides
_____ |